

CONFIDENCE INTERVALS USING THE T-DISTRIBUTION

CASIO CFX-9850GB PLUS INSTRUCTIONS

VISIT

These instructions show how to calculate a confidence interval for the mean of a population from a sample.

The fat content (in grams) of 30 randomly selected pies at the local bakery was determined and recorded as:

15.1 14.8 13.7 15.6 15.1 16.1 16.6 17.4 16.1 13.9 17.5 15.7 16.2 16.6 15.1 12.9 17.4
16.5 13.2 14.0 17.2 17.3 16.1 16.5 16.7 16.8 17.2 17.6 17.3 14.7

A 98% confidence interval for the average fat content of all pies made at this bakery can be

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List 1	List 2	List 3	List 4
15.1			
14.8			
13.7			
15.6			
15.1			

CALC TEST INTR DIST D

Step 2: Press **F4** to select the INTR menu, then **F2** to select *t*.

Finally, press **F1** to select 1-S.

List 1	List 2	List 3	List 4
1 15.1			
2 14.8			
3 13.7			
4 15.6			
5 15.1			

1-S 2-S

Step 3: Set up the screen as shown to calculate the 98% confidence interval.

1-Sample tInterval
Data : List
C-Level : 0.98
List : List1
Freq : 1
Execute
CALC

Step 4: Press **F1** to calculate the confidence interval.

1-Sample tInterval
Left = 15.283
Right = 16.51
$\bar{x}$ = 15.896
s_{n-1} = 1.3652
n = 30

So, we are 98% confident that the average fat content of all pies made at this bakery lies between 15.283 and 16.51 grams.